Yukon
Energy, Mines and Resources

FOREST MANAGEMENT BRANCH

BUILDING LOGS TIMBER HARVEST PLAN (MARSHALL CREEK)

1. Tombstone Data

DISTRICT: Haines Junction

Geographic description of project location:

BL1: West of Canyon – 1556.5 km Alaska Highway -south side

BL2: Marshall Creek – east end of Pine-Canyon Block 17

2. Timber Harvest Plan and Site Plan

Operating Area Summary

Unit	Total Area (ha)	Permanent roads and landings (ha)	Archaelogical reserves (ha)	Net Area to Reforest (ha)	Approx. Volume to be harvested
BL1	48.6	N/A	4.7	43.9	300-400 m3
BL2	50.2	N/A	0	50.2	200-300 m3

Site conditions – BL 1 – 8.5 km east of Canyon

Eco - Region	**Elevation (m)**	**Slope (%)**	**Aspect**	**Terrain**
Ruby Range	693	5-20%	South	Rolling
Slope position	**LFH (cm)**	**Soil drainage**	**Soil texture**	
Level gentle slope, some gullies	8-25 cm	Moderately well	Sandy Clay *(ground was frozen)*	

Stand conditions*

Species Comp (%)	**Age**	**Ave. Height (m)**	**Mean Dbh (cm)**	**SPH >14.5cm dbh**
Spruce 99% Aspen 1%	80+	19	31	389
SPH Green/Dead (%G%D)	**Green Vol. (m3/ha)**	**Total green vol. (m3)**	**Dead vol. (m3/ha)**	**Total dead vol. (m3)**
32% dead/67% green	49 m3/ha green	2151	48 m3/ha dead	2107

Operating Area Description

The block is located between the Alaska Highway and the Dezadeash River, 8.5 km west of Canyon. The stand is predominately spruce (50% dead due to spruce bark beatle) with a small percentage of aspen. The stand is relatively open with spruce regeneration/saplings and poles of good quality scattered throughout the block (838/ha regen; 300/ha saplings and poles). The terrain is gently sloping (5-20%) on a southern aspect with a few shallow gullies.

The Canyon Dump road is approximately 3 km east of this block and a private residence is approximately 0.5 km to the west of this block.

The forest floor ranges from 8-25 cm and the soils are sandy clay. There is scattered (light) wind throw throughout the block, oriented north/south.

There was evidence of moose use throughout the block.

An archaeological assessment was conducted, which resulted in five small reserves to protect the integrity of the heritage sites.

** Volumes are rough estimates – based on three recce plots*.

BUILDING LOGS TIMBER HARVEST PLAN (MARSHALL CREEK)

Site conditions – BL2 – Marshall Creek – West side				
Eco - Region	**Elevation (m)**	**Slope (%)**	**Aspect**	**Terrain**
Ruby Range	753	5%	South East	Rolling
Slope position	**LFH (cm)**	**Soil drainage**	**Soil texture**	**Soil type**
Level – some shallow gullies	10-12	Imperfect	Clay soils	N/A

*Stand conditions**				
Species Comp (%)	**Age**	**Ave. Height (m)**	**Mean Dbh (cm)**	**SPH >14.5cm dbh**
Spruce 95% Aspen 5%	147+	19	21	192
SPH Green/Dead (%G%D)	**Green Vol. (m3/ha)**	**Total green vol. (m3)**	**Dead vol. (m3/ha)**	**Total dead vol. (m3)**
33% dead/ 67% green	37	1857	92	4618

Operating Area Description

This stand is predominately spruce with a mix of aspen. Approximately 70% of the spruce are dead as a result of spruce bark beetle. The terrain is on a gentle slope with a few small gullies at the south end. Most of the area has thick step moss and clay soils underneath (soils were frozen at the time of assessment). There were some scattered spruce regeneration throughout.

Access: Two access points were evaluated. Based on residents concerns and potential safety issues, the access into this unit will be via an old trail/road from the Alaska Highway (refer to map).

There is a private residence 300 m from this unit.

** Volumes are rough estimates only – based on two recce plots*.

Values Evaluation	
Value	**Assessment/Evaluation**
Traditional or First Nations	These units are within Champagne and Aishihik's Traditional Territory. BL 1 is located on a bench above the Dezadeash River 8.5 km west of Canyon. BL 2 Is located west of Marshall Creek adjacent to an approved Pine Canyon THP (# 17)
Historic or Archaeological	The objective is to protect all known or newly identified site deemed highly valuable for Champagne and Aishihik First Nations and Yukon Government culture and heritage purpose. There is the potential within these areas for heritage and archaeological resources. An archeological assessment was conducted, and reserves have been established to protect heritage resources. At the time of harvest, if a previously unidentified cultural or heritage resource is encountered during the harvesting or road building operations, operations will cease to the extent necessary to ensure its protection until an assessment can be carried out.

BUILDING LOGS TIMBER HARVEST PLAN (MARSHALL CREEK)

Wildlife	As per the ***CATT ILP Forest Ecosystems, Wildlife, and Biological Diversity Guidelines*** (section 3.5) appropriate wildlife movement corridors have been maintained at the landscape level focusing on riparian management areas while stand level buffers, reserves and retention have are provided as on block elements to enhance and complement the landscape connectivity. This block is located within the ***CATT ILP FRMZ High Wildlife Value Area.*** Therefore all harvest blocks must average 25% retention of stand structure with a range of 10-30%. The total amount of retention in this block (Buffers, Reserves and dispersed leave trees) is approximately 90%. This block meets all connectivity requirements outlined in the ***Habitat Connectivity Planning Recommendations For Forest harvest Planning In The Champagne And Aishihik Traditional Territory.***
Fish and Water	As per the ***CATT ILP Watershed and Riparian Management Guidelines*** (section 3.6) the cumulative area of this and all other blocks in this landscape unit does not exceed 20% of the watershed area. In addition, the ***THPOG*** guidelines have been followed for all classified streams in or adjacent to this block (see section 5 ***Riparian Management*** of this S&HP).
Recreational /Visual	This project will have minimal impact on the viewscape due to the light harvest level. A significant amount of the existing forest will remain post harvest. Existing access will be utilized.
Fuel Reduction	**Fuel Abatement:** This area is located in the ***CATT ILP Forest Resource Management Zone*** and ***Landscape Fuel Abatement Subzone.*** As such, it meets the management objectives of: 1. being a stand with >30% beetle attack. 2. having a size, shape and location that "enhances fuel discontinuity". 3. has a stand structure that allows the implementation silviculture principles to reduce the fire hazard. 4. being close to the Alaska Highway and the communities of Haines Junction and Canyon.
Forest Health	This area has been severely attacked by spruce beetle (Dendroctonus Rufipennis). The proportion of merchantable **stems/volume** that are attacked by beetles is 32%/49% (BL1) and 43%/71% (BL2). Harvesting is prescribed to remove these trees and allow for planted and natural regeneration.

Riparian Management

Riparian ID #	Class (Stream, Wetland,Lake)	Reserve Zone Width (m)	Management Zone Width (m)	Will stream or wetland be crossed? (Y/N)	
Dezadeash	S1	40-80	60-120	No	This block is over 150 m from the river.
Marshall Creek	S2	30-60	50-80	No	This block is over 180 m from Marshall Creek.

Riparian Area Description

Reserves and Management zones are as per the ***Timber Harvesting Planning and Operating Guidebook.***
The ***Habitat Connectivity Planning Recommendations for Forest Harvest Planning in the CATT*** have been adhered to. Both proposed units are over 150 m from fish streams.

Temporary Access *(there are no permanent access structures proposed within these units)*

Road	class	RoW (m)	Running surface (m)	Total width (m)	Length (km+mmm)	Total area (ha)
N/A	2W (winter branch road)	10-14	5-6 m	6-8	n/a	n/a

Describe access considerations including requirements for new development, maintenance schedule, decommissioning, restricted access, seasonal shutdowns and any mitigation's as result of values assessment.

BL 1: Access to this unit will be existing Alaska Highway access point and along the old Alaska highway roadbed during the winter time. The access into Lot 1053 will not be utilized. There will be one landing for processing and loading the maximum size is 30X50 m. Refer to the map for the approximate location. The proponent will be required to obtain a YTG Highways permit to utilize the right-of-way prior to harvesting.

BL 2: The access into this unit is via an existing road off the Alaska highway which comes close to the northern boundary of the block. A winter trail will be utilized beyond this point. One landing is proposed, however a second landing may be required at the end of the existing road. The approximate location of the landing is noted on the map. The maximum landing sizes are 30x50m.

Stream Crossing

Describe any stream crossings including crossing structure.
There are no stream crossings required.

Higher level and other plans

This site plan is consistent with the guiding principles within the SFMP and the ILP.
Forest Management Planning Processes to date include:

- Strategic Forest Management Plan for the Champagne and Aishihik Traditional Territory.(2004)
- Integrated Landscape Plan for the Champagne and Aishihik Traditional Territory (2007),
- Pine Canyon Timber Harvest Plan, 2008

These proposed units are within the Pine Lake and Canyon landscape units (LU's) identified in the SFMP. Planning has occurred within these units and includes numerous operating units which are approved for salvage harvesting. It would be preferable to amend this plan to include these two areas, however, the Forest Resources Act does not permit an amendment to THPs. Hence, these two new areas are proposed as new Building Log THP to meet the needs for a specific product (house logs).

Stand level Objectives

- To selectively salvage harvest spruce house building logs during the winter.
- Building logs need to good form (minimum taper, twist, defects), tall and relatively large diameter (approximately: minimum 25 cm and a 12 m length – this often translates to a tree which has a diameter of 40-50 cm at breast height, and a minimum of 12 m long due to the taper). These trees are generally dead as a result of the spruce bark beetle, however, the client may utilize a small percentage of green trees if it meets these specifications.

BUILDING LOGS TIMBER HARVEST PLAN (MARSHALL CREEK)

Harvesting Prescription

Describe the silvicultural system being prescribed including target species for removal, retention, slash management, soil conservation

- Selectively harvest a small percentage of the dead spruce trees the large diameter, dead (and a small percentage of green) spruce to a target of 10% of the stand.
- Winter harvest only to protect the sensitive soils and reduce compaction.
- Ground based harvesting using a chainsaw and a skidder.
- Skid trails will be approximately 3-4 m wide.

BL1: There are approximately 300-400 trees within this unit which meet the building log criteria. Hence the harvest level will be approximately 3-5% of the stems in the stand. This includes harvesting the building logs, and harvesting trees along the access trails. The approximate volume targeted for harvest is: 300-400 m^3 (which is approximately 8% of the stand volume and area).

BL 2: There are approximately 100-200 trees within this unit which meet the building log criteria. Hence the harvest level will be approximately 2-5% of the stems in the stand. This includes harvesting the building logs, and harvesting all the trees along the access trails (approximately 1 km). The approximate volume targeted for harvest is: 200-300 m^3 (which is approximately 8% of the stand volume or area).

Reforestation Plan

These units will remain stocked post harvest, due to the light salvage harvest level prescribed. Natural ingress of spruce will eventually fill in on the trails and the small gaps created by harvesting.

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Describe the silvicultural system being prescribed including target species for removal, retention, slash management, soil conservation

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- Ground based harvesting using a chainsaw and a skidder.
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BL1: There are approximately 300-400 trees within this unit which meet the building log criteria. Hence the harvest level will be approximately 3-5% of the stems in the stand. This includes harvesting the building logs, and harvesting trees along the access trails. The approximate volume targeted for harvest is: 300-400 m^3 (which is approximately 8% of the stand volume and area).

BL 2: There are approximately 100-200 trees within this unit which meet the building log criteria. Hence the harvest level will be approximately 2-5% of the stems in the stand. This includes harvesting the building logs, and harvesting all the trees along the access trails (approximately 1 km). The approximate volume targeted for harvest is: 200-300 m^3 (which is approximately 8% of the stand volume or area).

Reforestation Plan

These units will remain stocked post harvest, due to the light salvage harvest level prescribed. Natural ingress of spruce will eventually fill in on the trails and the small gaps created by harvesting.

Timber Harvest Plan & Site Plan reviewed and Approved by:

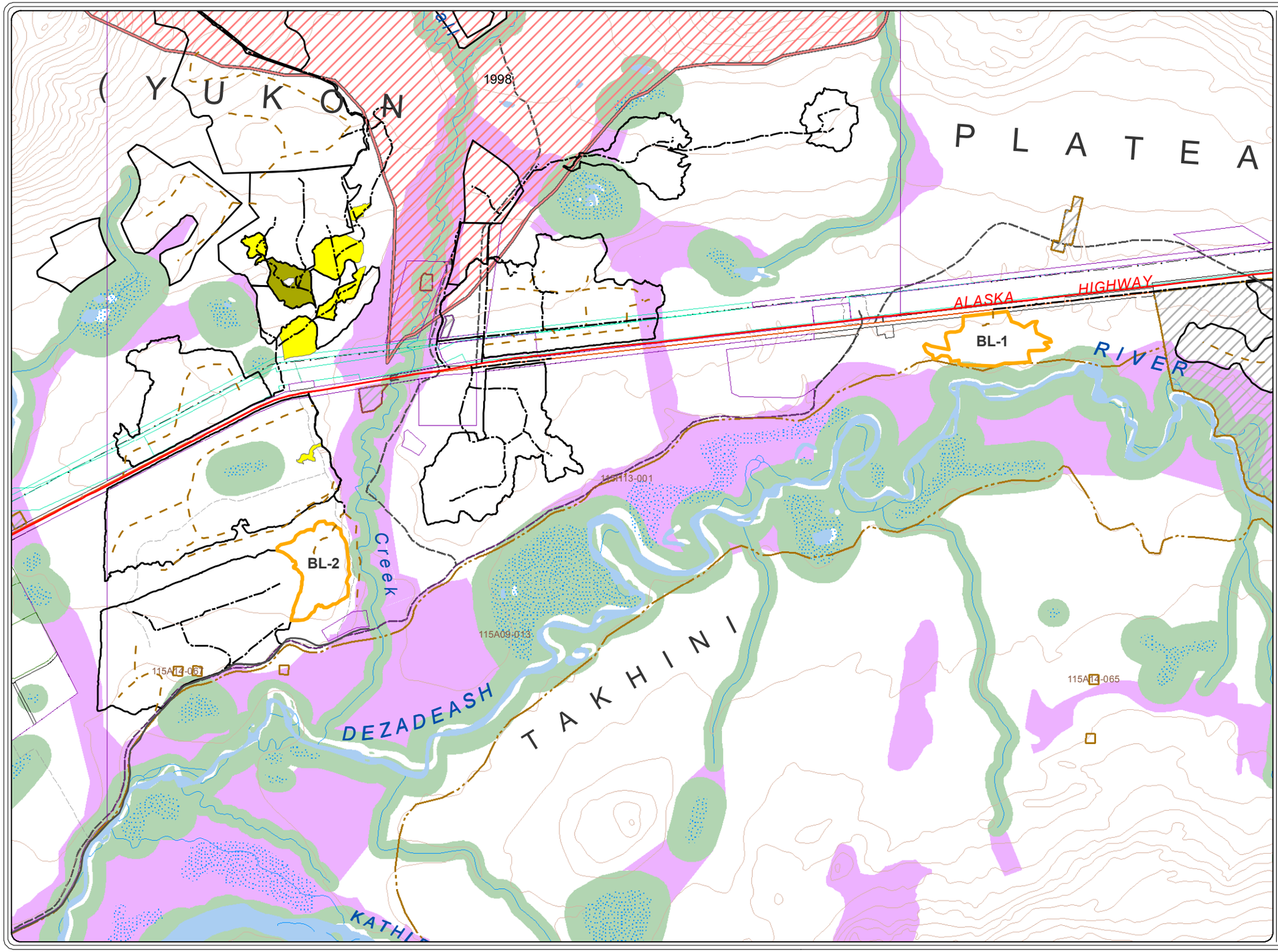
Prepared by: Lauren Waters, Forester
Forest Management Branch

June 18/12
Date

Approved by: Lyle Dinn, Director
Forest Management Branch

June 19, 2012
Date

3. **Appendix A: Maps**
4. **Appendix B: Representation Summary**



Marshall Creek Building Logs Timber Harvest Plan

Kluane / Haines Junction District
Champagne Ashihik Management Area

For more timber harvest information
Web: www.emr.gov.yk.ca/forestry
Phone: 1.867.456.3999

Date: June 01, 2012

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Metres

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Yukon Albers
NAD 83

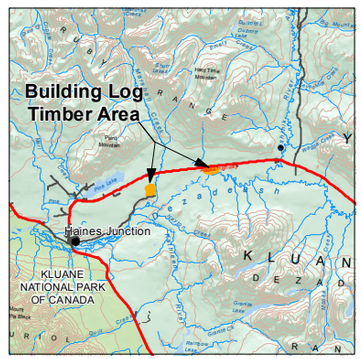
Forestry spatial data managed and maintained by the Forest Management Branch, Yukon Government. All other spatial data provided by Geomatics Yukon.

Project Specific Features
- Existing Access
- Proposed Access
- Timber Harvest Area
- Operating Units
- Riparian Connectivity
- Riparian Buffer
- Fire History

Past Harvesting
- Island
- Landing
- Partial Cut
- Patch Cut
- Patch - Retention

Land Administration
- Agricultural Land Applications
- Agricultural Land Dispositions
- Land Applications - Active
- Land Dispositions
- Land Licenses
- Notations
- Development Hold Areas
- Surveyed Easements
- Surveyed Land Parcels
- Municipal/Community Bdry
- YESAA Community Bdry

First Nation Administration
- A: Surface & Subsurface Rights
- B: Surface Rights
- FS: Fee Simple
- Unsurveyed Interim Protected



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Energy, Mines and Resources
Forest Management Branch

Operating Unit 1
Building Logs Timber Harvest Plan

Kluane / Haines Junction District
Champagne Ashihik Management Area

For more timber harvest information
Web: www.emr.gov.yk.ca/forestry
Phone: 1.867.456.3999

Date: June 01, 2012

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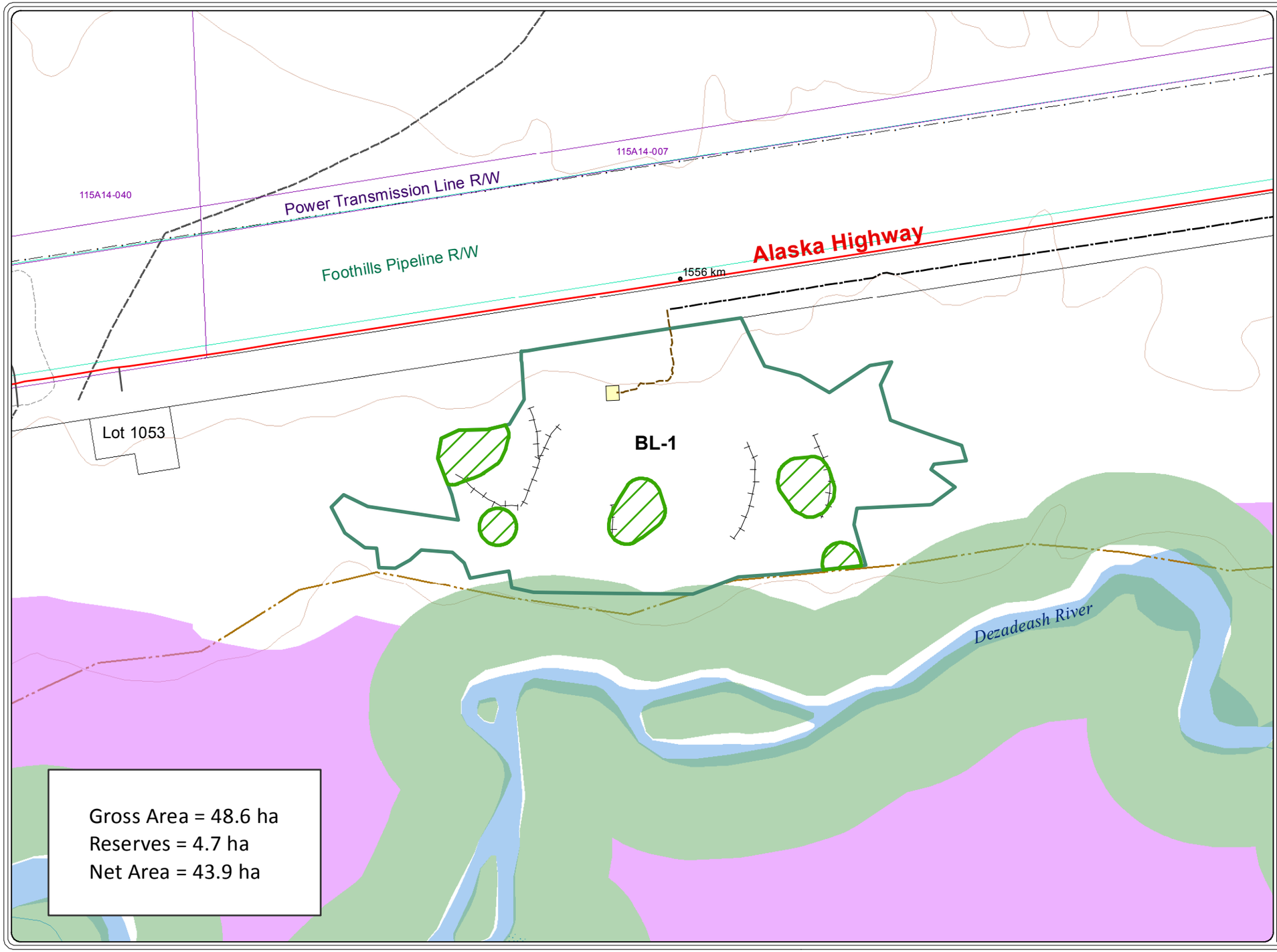
Forestry spatial data managed and maintained by the Forest Management Branch, Yukon Government. All other spatial data provided by Geomatics Yukon.



Project Specific Features

Land Administration

- Agricultural Applications
- Agricultural Dispositions
- Land Applications
- Land Dispositions
- Land Licenses
- Notations
- Development Hold Areas
- Surveyed Easements
- Surveyed Land Parcels
- Municipal/Community Bdry
- YESAA Community Bdry

- Permanent Sample Plot
- Gully Features
- Existing Access
- Proposed Access
- Landings
- Operating Units
- Heritage Reserve
- Riparian Connectivity
- Riparian Buffer

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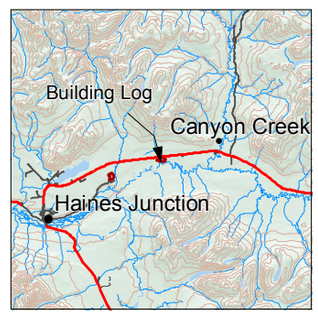

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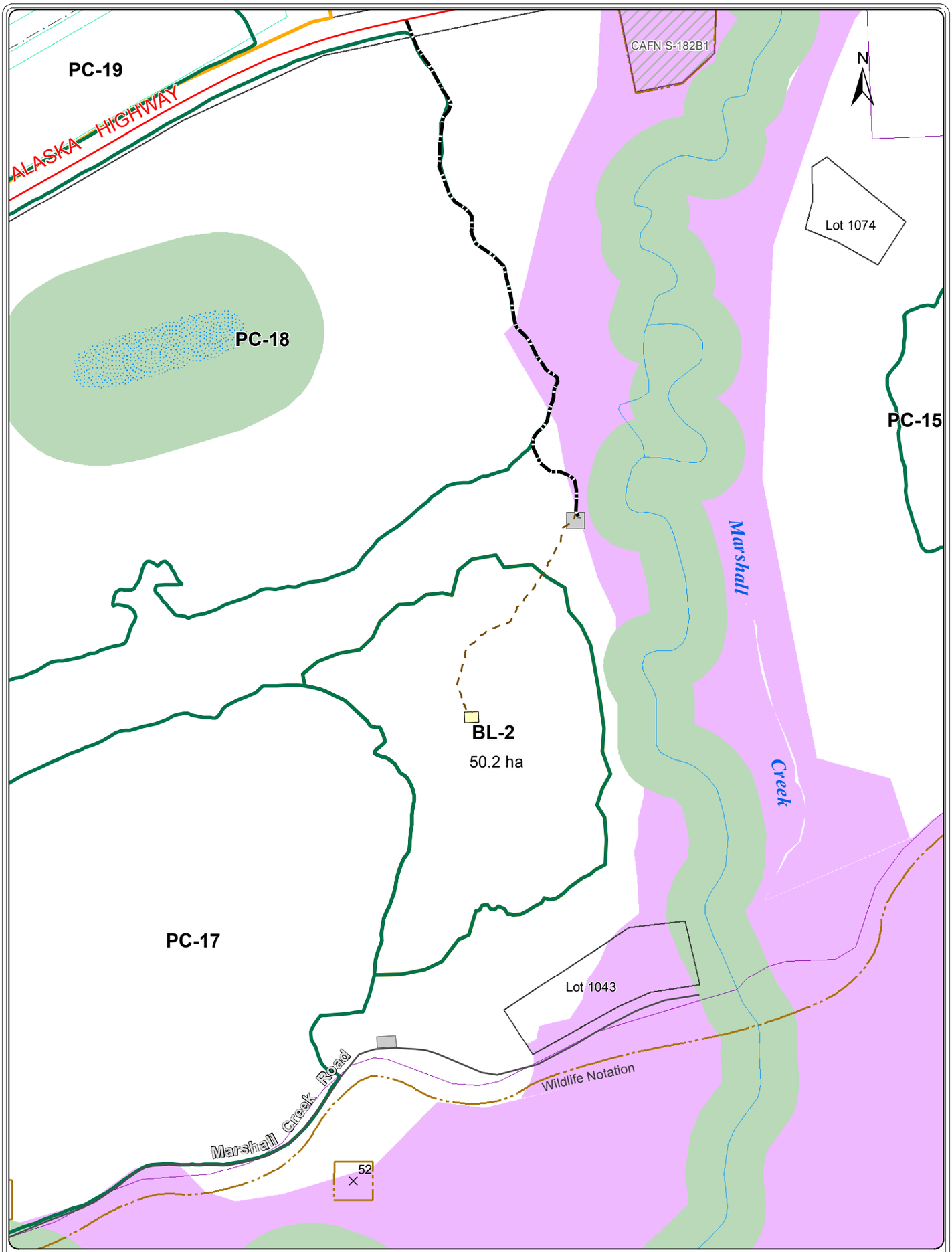

Operating Unit 2
Building Logs Timber Harvest Plan

Kluane / Haines Junction District
Champagne Ashihik Management Area

For more timber harvest information
Web: www.emr.gov.yk.ca/forestry
Phone: 1.867.456.3999

Date: June 01, 2012

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Metres

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UTM 8N
NAD 83

Forestry spatial data managed and maintained by the Forest Management Branch, Yukon Government. All other spatial data provided by Geomatics Yukon.

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Forest Management Branch

Project Specific Features

- Permanent Sample Plot
- Existing Access
- Proposed Access
- Landing
- Proposed Landing
- Operating Units
- Timber Harvest Plan Areas
- Riparian Connectivity
- Riparian Buffer

First Nation Administration

- A: Surface and Subsurface Rights
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Land Administration

- Agricultural Land Applications
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- Notations
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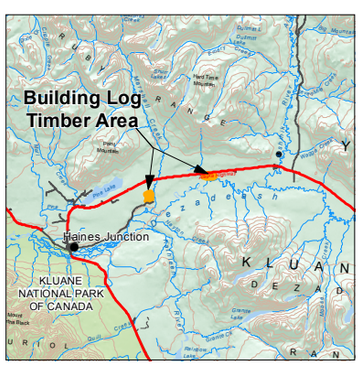

- Highway
- Primary Roads
- Local Roads
- Resource/Recreation
- Alley/Service Lane
- Winter

Appendix: Representation Summary
Building Logs Timber Harvest Plan (Marshall Creek)

A total of nine comments were received during the notification period on the Client Driven Timber Harvest Plan – Building Logs held from September 1st to September 30th, 2011.

Comments were received from:

- Roger Brown, Champagne and Aishihik First Nations
- Fred Jim – Trapper and adjacent property owner
- Ken Anderson – adjacent property owner
- Heather Fitzgerald
- Marilyn Brewster
- Micheal Riseborough – Village of Haines Junction
- Justin Hooper – YTG – Environment
- Bernie Cross – YTG – Highways and Land Management
- Ruth Goddhardt – YTG- Heritage Resources – Cultural Services Branch

The following table contains a summary of the comments received, with responses to the comment and how the comment has been addressed.

Building Logs Timber Harvest Plan (Marshall Creek)

Name/ Organization	Comment	Consultation Comment Response	How comment/s have been addressed.
Village of Haines Junction	Council reviewed the Draft Timber Harvest Plan on August 16, 2011 and had no objections.	None.	No action required.
Ruth Gotthardt, YTG- Heritage Branch	The archaeological assessment must be carried out by a qualified archaeologist under Yukon Archaeological Sites Regulation Permit.		This work has been completed and results have been incorporated into this THP.
Bernie Cross – YTG- Highway and Land Management	The existing access from the Alaska Highway may require a review to be sure the access is suitable for the type of traffic that is associated with this type of operation, some modifications may be required. The map of BL1 shows the proposed landing inside the right-of-way. It might be worth considering moving the landing away from the ROW and have a "dog-leg" access for a visual screen from the highway.	The proponent will be required to contact YTG highways to obtain any permits or reviews required prior to harvesting.	The proponent will be responsible to obtain required permits.
YTG Environment	Environment has reviewed it and had no major concerns	None required.	
Ken Anderson	Ken Anderson was formally notified of this THP because his residential property is within 1 km of BL-2. FMB spoke with Ken and received a letter. Ken has three key concerns: 1. The lower road is the only access to their property, and although it is owned by YTG, it no longer has a maintenance budget. He is concerned about damage to the road which he has been maintaining and plowing. He wants to discourage any industrial use of that road, that could set a precedent.	The road in question is a public unmaintained highway. This road is public property and can be used by anyone.	Commitment to utilize the access route from the Alaska Highway.

	2. Use of the road would be a safety issue 3. Connecting the new Alaska Highway to the old Alaska Hwy introduces a loop road, which could have a negative impact on wildlife habitat. 4.		
Heather Fitzgerald	Heather and her family live on the old highway that could potentially access BL-2. She expressed many of the same concerns as Ken Anderson. She is very much against industrial use of "her" road and wants to know who would fix the road.	See above.	
Marilyn Brewster	Marilyn has property on the old highway and expressed similar concerns to Ken Anderson. She is concerned about increased traffic on the road and maintenance issues.	See above.	
Fred Jim – CAFN Elder and Trapper	Fred Jim is concerned with harvesting and access to unit BL1, which is within 1 km of his cabin. He is a registered trapper in the area. He expressed the following concerns: • He strongly opposes this plan. • This area is close to his lot 1053 and trapper's cabin. • Access- he does not want the operator to use "his" highway access point, and instead suggests that he should use the west entrance near the Canyon Dump • This narrow corridor of dense forest is home to fur-bearing and big game animals, and is presently still a good trapping area. He would like compensation as his trapline is shrinking.	A draft trapper compensation process is currently under development by the Yukon government. CAFN and other Yukon First Nations will have opportunity to review and comment on the process. Until the trapper compensation process under Section 16.11.13 of the First Nations Final Agreements is in place, FMB is willing to work with FN, affected trappers and licencees, to ensure their site specific concerns are identified and addressed both within the context of the CAFN final agreement section 16.11.13 and section 3.9 of the ILP.	The trapper will be notified prior to harvesting. Only selective harvesting of less than 10% of the stand (approximately 300-400m3) will occur, this will retain the forested stand cover. Access: The proponent will not use the access near Fred Jim's property.

Champagne and Ashihik First Nations	Concerns were expressed about Fred Jim's access. They would prefer if the access was to come in and out from the east end (near the Canyon dump). Stated that there may be YG highways concerns. Also re-stated that Fred Jim, the trapper would like compensation for resource development and activity on his trapline. Has asked that Fred Jim and CAFN be notified directly prior to commencement of the actual operations (as a condition of the permit). CAFN has conducted an overview of the cultural and heritage values in these areas. We are still waiting for the archaeological assessments on these areas.	See above for comments on Fred Jim's issues. An archaeological assessment has been completed. All recommendations have been incorporated into this THP.	